

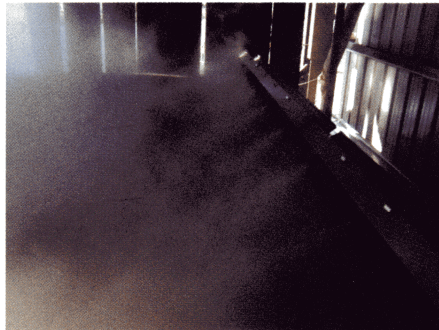
Suppressing dust with dry fog

Dust Solutions Inc. (DSI) of Beaufort, South Carolina, has successfully developed a "dry fog" agglomerative dust suppression system which employs compressed air and a special nozzle design to produce a blanket of water droplets which are the same size as air-borne dust particles (1-10 microns). These droplets impact the particles, adding sufficient weight to cause them to fall back to the ground or surface from which the dust emissions originated.

The DSI dry fog system consumes very little water. One gallon is said to be sufficient to cover thoroughly a surface area half the size of a football pitch. No additional chemicals are required and it is consequently very cost effective. The system can be employed at temperatures below freezing because the fog lacks sufficient mass to freeze.

The company states that dust reduction for bulk handling operations such as shiploading has exceeded 96% efficiency without wetting the material.

Typical moisture addition is less than 0.05%, making the system suitable for use even with hygroscopic powders such as cement. It can be quickly installed as a temporary measure and has frequently been employed at short notice, for example, when a dusty cargo needs to be loaded into or discharged from a vessel at a location where especially rigorous environmental regulations apply.



DSI dry fog system installed around the hatch of a bulk vessel.